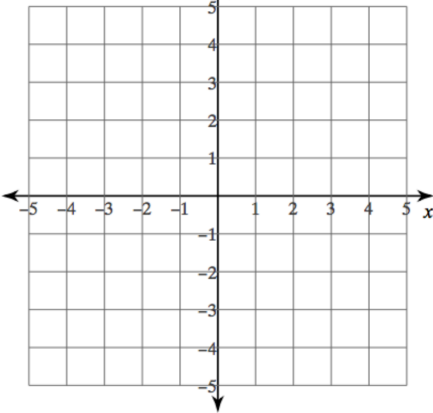
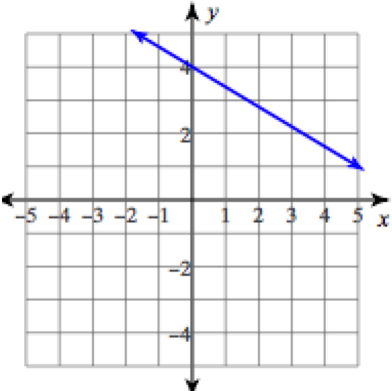
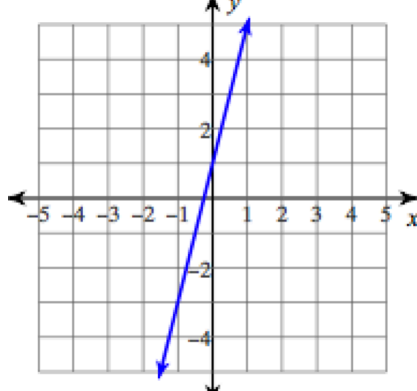


Unit 3: Linear Expressions, Equations and Inequalities

NAME: _____

Skillz Review: 1 point each.		
<p>Plot the points: Label each.</p> <p>1) (4, -2) 2) (-3, 0)</p> 	<p>Simplify:</p> <p>3) $\frac{1-(-9)}{2-4}$</p>	<p>Simplify:</p> <p>4) $(-2)^3 - 3(3)$</p>
	<p>5) $\frac{1-7}{5-8}$</p>	<p>6) $[5 + (10 - 11)]^2 + (4)(-3)$</p>
Directions: Write the slope-intercept form of the equation.		
<p>1)</p> 	<p>2)</p> 	
<p>3) through: (-4, -2), slope = $\frac{3}{4}$</p>	<p>4) through: (4, -3), slope = $-\frac{7}{4}$</p>	
<p>5) $f(0) = 2, f(-3) = 4$</p>	<p>6) through: (1, 5) and (2, -4)</p>	

9) through (4, 2) and (2, -3)

10) through: (2, 3), parallel to $y = 3x - 1$

11) through: (-5, 3), perpendicular to $y = x - 6$

Directions: Determine which lines, if any, are parallel or perpendicular.

12) Line A: $5x + y = 4$

Line B: $y = 5x - 8$

Line C: $x + 5y = 10$

Directions: Use the data in the table to answer the questions. ROUND TO THE NEAREST TENTH.

13)

X	-10	-6	-3	0	2
Y	58	47	43	37	30

a) Find the line of best fit.

b) Approximate the value of y when $x = 25$

14)

X	0	14	28	30	52
Y	45	40	32	31	26

a) Find the line of best fit.

b) Find the zero of the function.

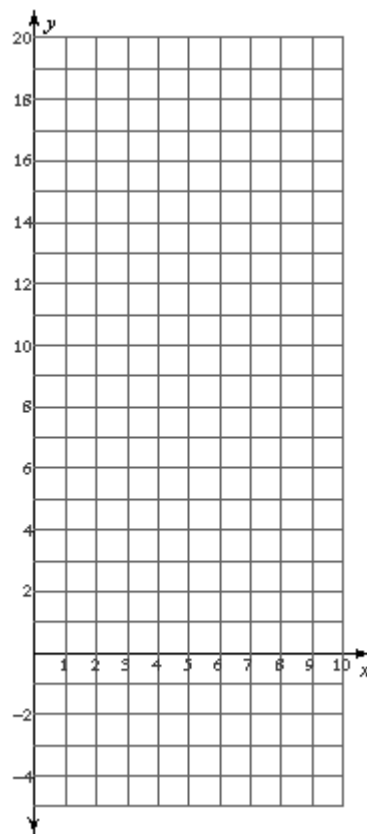
15) Mr. Brust decides to start a company in hopes of showing Mr. Kelly how easy it is to make money. He decides to sell his vintage 1980s Go-Bots. He had to borrow \$4 to start his company from Mr. Sullivan. After 3 months he has made \$5.

a) What's Mr. Brust's slope (rate of change) for this situation?

b) What's Mr. Brust's y-intercept (initial value) for this situation?

c) Write an equation of the line for the given situation. Graph the line.

d) How much money would Mr. Kelly have after 14 months?



16) Mr. Brust needs to make some side cash to pay for some new Star Wars figurines that "he just has to have", so he does some tutoring. After 4 hours of tutoring he has \$22. The next week he checks and after 9 hours of tutoring he has \$62.

a) Write an equation that models how much money Mr. Brust has as a function of how many hours he's worked.

b) How much money does Mr. Brust have after tutoring for 30 hours?

Chapter 4 to the score they received on their first test.

Days, x	1.5	2	3	5	6	9
Score, y	99	93	86	83	73	68

- a) Find the equation that models the best-fitting line for the above data. Round values to the nearest tenth.
- b) Approximate the score of someone who spent 7 days working on Chapter 4.
- c) Approximate the score of someone who spent 4 days working on Chapter 4.
- d) Find the zero of the equation that models the best-fitting line. What does it represent? Does it make sense? Why or why not?